

# Call for Undergraduate Research Assistant – PDP Grant 2025

We are looking for a highly motivated undergraduate student from the Electrical Engineering Department to join a funded research project under the Research for Early-Career Lecturers (PDP) Scheme 2025 from the Ministry of Higher Education, Science, and Technology (KEMDIKTISAINTEK), titled: "**Development of Kalman Filter for Disturbance Estimation in Fighter Aircraft under Parameter Uncertainty and Sensor Data Noise.**" This research focuses on developing a robust estimation algorithm for dynamic systems, particularly the Kalman Filter (KF), to handle uncertainty and noisy measurements, with simulation studies relevant to aerospace and control systems.

## Position Offered

- Undergraduate Research Assistant (1 position only)

## Duration

- August 2025 - December 2025 (5 months)
- Part-time and flexible schedule, adjusted to student coursework

## Your Tasks

The position includes the following responsibilities:

- Join regular meetings with the research team.
- Assist in the preparation of progress and final reports.
- Learn KF (and variants) using MATLAB or Python.
- Present your learning progress in meetings.

## Eligibility

- Active undergraduate student (minimum 5th semester) in Electrical Engineering, but students below the 5th semester can be encouraged to apply.
- Basic understanding of control systems, signals, or estimation techniques and skills in MATLAB or Python programming will be helpful, but not mandatory.
- Committed to learning and open to working in a research environment.

## Your Benefits

- Monthly allowance of approximately IDR 1 million/month to help support your tuition and academic needs.
- Enjoy respectful and responsive supervision with multiple channels for direct interaction and timely feedback. You will also gain hands-on experience with Kalman filter theory and MATLAB simulations.
- We dedicate 25% of the total funding (including your incentive) to your personal growth, which includes paid training, workshops, and seminars to enhance your technical and professional skills.
- Opportunity to strengthen your academic portfolio and can be aligned with your undergraduate thesis (skripsi) or final project.

## Application Requirements

Interested students must submit a Motivation Letter (**no more than one page, in English**) that includes the following:

- A brief self-introduction (name, major, academic interests).
- Motivation for joining this research project.
- Why you believe you would be an excellent candidate for our team.
- Your expectations or goals from this experience.

## Submission Details

Please submit your application in PDF format via the Google Form [\[here\]](#) by **25 July 2025** at the latest.

**Let this be your first step into the world of scientific research.** We are excited to see your curiosity and passion grow. You do not need to be an expert from the start—what matters most is your willingness to learn and your courage to make mistakes along the way.

Warm regards,

**Dr. Heri Purnawan**

Principal Investigator – PDP Grant 2025

System Modelling and Control, Universitas Islam Lamongan